

CLAIMS

1. A folding-type electronic device that has a main casing and a sub-casing openably and closably coupled with each other via a hinge, wherein

5 the hinge is mounted with a functional component, and the electronic device enables a user to access the functional component and operate the functional component regardless of whether the electronic device is in the opened state or in the closed state.

10 2. A folding-type electronic device according to claim 1, wherein the functional component is mounted on the hinge coaxially with the hinge.

3. A folding-type electronic device according to claim 2, wherein the hinge has a pair of bearing
15 mechanisms that comprise:

a pair of bearings coaxially provided, with a distance between the two bearing mechanisms, on one of a main casing and a sub-casing; and

20 a pair of shaft members coaxially provided, with a distance between the two shaft members, on the other of the main casing and the sub-casing, and engaged with the bearings respectively, and

the functional component is mounted in the space between the pair of bearing mechanisms.

25 4. A folding-type electronic device according to claim 3, wherein

the pair of bearings are formed on a chassis of one of the main casing and the sub-casing, and the pair of shaft members comprises a pair of hinge pins, which are fixed to cylinders formed on a chassis of the
30 other of the main casing and the sub-casing,

each hinge pin has a large-diameter portion and a small-diameter portion integrally structured in an axial direction, and

35 the large-diameter portions are fixed to the cylinders respectively, and the small-diameter portions are engaged with a pair of second bearings

respectively.

5. A folding-type electronic device according to claim 3, wherein

the functional component is disposed
5 between the pair of bearing mechanisms and is rotatably supported by a pair of second bearings that are provided, with a distance therebetween, on one of the main casing and the sub-casing.

6. A folding-type electronic device according to
10 claim 3, wherein

the functional component is disposed
between the pair of bearing mechanisms and is movably supported in an axial direction by a pair of second bearings that are provided, with a distance therebetween,
15 on one of the main casing and the sub-casing.

7. A folding-type electronic device according to claim 6, wherein

the functional component is a structure unit that has a large-diameter portion at the center of the structure unit in an axial direction, and has small-diameter portions at both ends of the structure unit, and
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the small-diameter portions at both ends are engaged with the pair of second bearings respectively.

8. The folding-type electronic device according to
25 claim 4, wherein

the functional component is a rotation switch that is rotatably supported within at least a constant angular range by the pair of second bearing members.
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9. A folding-type electronic device according to claim 8, wherein

the functional component consists of: a rotation unit that is rotatably supported within at least
35 a constant angular range by the pair of second bearings; and a rotation detection sensor that is fixed to one of the main casing and the sub-casing, adjacent to the

rotation unit.

10. A folding-type electronic device according to claim 4, wherein the functional component is supported by the pair of second bearings such that the functional component is not rotatable but is movable in an axial direction within a predetermined range.

11. A folding-type electronic device according to claim 4, wherein

the functional component is supported by the pair of second bearings such that the functional component is rotatable within at least a constant angular range and is also movable in an axial direction within a predetermined range.

12. A folding-type electronic device according to claim 1, wherein the functional component is an electric element such as a switch.

13. A folding-type electronic device according to claim 1, wherein the functional component is a communication element.

14. A folding-type electronic device according to any one of claim 1, wherein the functional component is an optical element.

15. A folding-type electronic device according to claim 1, wherein the functional component is an acoustic element.